ATTACHMENT 1

CONTACT ENERGY LIMITED

CLUTHA HYDRO SCHEME – INCREASING FLEXIBILITY AND SECURITY OF ELECTRICITY SUPPLY

Fast-track Approvals Referral Application

30 June 2025

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1. APPLICANT

1.1 APPLICANT DETAILS

Person or entity making the request: Contact Energy Limited

Contact Energy Limited ("**Contact**") is the second largest electricity generator/retailer in New Zealand, with a flexible and largely renewable portfolio of electricity generation assets.

Contact commenced operations in early 1996 when it acquired a portfolio of electricity generation assets from the state-owned electricity generator (Electricity Corporation of New Zealand). Contact owns and operates 11 generating stations across the country and generally produces 80-85% of its electricity from renewable hydro and geothermal resources. Contact is committed to contributing to the achievement of New Zealand's climate change targets and assisting the New Zealand Government to meet its climate change goals through the development, construction, maintenance and operation of renewable electricity infrastructure.

Contact Person:	Boyd Brinsdon
Organisation:	Contact Energy Limited
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1.2 AGENT ACTING ON BEHALF OF THE APPLICANT

Organisation:	Mitchell Daysh Limited
Contact Person:	Claire Hunter
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1.3 COMPLIANCE AND ENFORCEMENT HISTORY

As noted above, Contact has been a major operator of large power stations since 1996. Contact has an extensive portfolio of electricity generation assets and has a proven track record of environmental compliance in relation to Contact's operation of these sites.

Contact has a strong commitment to the environment and robust processes to ensure compliance with the resource consents it holds. Contact has 11 generation sites located throughout New Zealand. Contact holds approximately 120 resource consents associated with the construction, operation and maintenance of these generation sites. These consents are comprised of 3,500 conditions. Contact has reliable and regularly reviewed and audited systems in place to ensure adherence to these conditions. This includes a regular environmental monitoring programme, effective site management and consultation with key stakeholders.

Since the formation of Contact in 1996 there are only three instances where compliance and/or enforcement actions have been taken against Contact by a local authority under the Resource Management Act 1991 ("**RMA**"). All of these have been remedied by Contact.

1. Contact has extensive environmental offset and restoration conditions associated with its Ohaaki Geothermal Power Station, including in relation to wetland areas. In April 2021 it received an abatement notice from Waikato Regional Council in relation to aerial (helicopter) boom spraying of pest plants and weeds in the Torepatutahi Wetland during February 2020. The spraying was conducted in accordance with Contact's consents and permitted activity guidelines, however, it also resulted in kill of non-target species. The abatement notice directed Contact to be more selective in conducting pest control methods. Contact has undertaken a full review of the ecological restoration programme in communication with mana whenua and stakeholders and prepared an Annual Work Plan to inform interested parties and guide activities in and around the wetland.
2. In February 2019, a geothermal reinjection well on Contact's Wairākei geothermal steamfield over-pressurised, causing geothermal water to be discharged into a nearby soakage pond not intended to store such volumes. Consequently, the pond gave way, causing soil and geothermal water to flow into the nearby Waipuwerawera Stream. Contact was prosecuted and participated in an ā kanohi restorative justice process with the affected hapū of Ngāti Tūwharetoa, culminating in a comprehensive cultural impact assessment, formal apology and full suite of long-term mitigations agreed with tangata whenua and the Court. An important outcome was the development of a much stronger and deeper understanding by Contact of Ngāti Tūwharetoa and their

relationship to the whenua and awa, and their role as kaitiaki and mana whenua. This has now been appropriately addressed, and no further issues have occurred.

3. In July 2022, Otago Regional Council ("**ORC**") issued Contact with an abatement notice directing it to submit to ORC a revised Landscape and Visual Amenity Plan ("**LVAMP**") for the Kawarau Arm of Lake Dunstan. The LVAMP manages the landscape and visual amenity effects associated with the on-going operation of the Clyde Dam as they occur in the Kawarau Arm (near Cromwell). The condition requires Contact to reassess the LVAMP every five years. The draft of the 2019 to 2024 reassessment was forwarded to the ORC and Central Otago District Council for consultation and mistakenly approved. A further draft of the reassessed LVAMP was submitted in June 2022, however, ORC considered that the new LVAMP did not appropriately cover key matters such as plant pest management and driftwood accumulation and requested further assessment. Contact worked proactively with the Councils and key stakeholders to prepare a new LVAMP. This was submitted to ORC for approval, and subsequently the abatement notice was uplifted in March 2023.

Given the extent of Contact's electricity generation assets, Contact has a strong track record of environmental compliance associated with the construction, operation and maintenance of these facilities. Contact will ensure it continues to implement best practice management and compliance to adhere to its consent conditions and have the appropriate strategies in place to do so.

2. REFERRAL APPLICATION SUMMARY

2.1 PROJECT NAME

Clutha Hydro Scheme – Increasing Flexibility and Security of Electricity Supply ("**the Project**").

2.2 PROJECT DESCRIPTION AND LOCATION

2.2.1 Summary

The Project's objective is to deliver greater operational and management flexibility of the water storage in Lake Hāwea to respond to, and enable, greater decarbonisation of the electricity system and to increase New Zealand's security of electricity supply.

Contact is seeking that the Project be referred under the Fast-track Approvals Act 2024 ("**FTAA**") to enable it to seek and obtain new consents, as well as consequential changes to its existing consent conditions, to achieve the Project's objectives. More specifically, the new consents seek to enable the normal minimum operating level of Lake Hāwea to be lowered to 336 metres above sea level ("**masl**"). In addition, Contact is seeking to enable the minimum level of Lake Hāwea to be lowered to 333 masl at 4% Electricity Risk Curve ("**ERC**") (the Alert Level) and 330 masl at 8% ERC during low storage contingency events, as defined by the system operator (being Transpower), to be used solely during emergency or crisis situations regarding electricity supply. These proposed operating levels are summarised in **Table 1** below.

New Zealand's electricity system is rapidly evolving with the reduction in gas supply and the transition towards increasing and diversifying its supply of renewable electricity to contribute towards achieving New Zealand's decarbonisation goals. As the development of intermittent renewable electricity generation activities (such as wind and solar) increases, and thermal generation is phased out, the role of hydroelectricity generation combined with sizable storage is becoming increasingly important, in that storage enables hydro assets to operate flexibly and play the role of balancing supply and demand in real time. The Project is therefore of national significance and will contribute to ensuring New Zealand's electricity supply system is fit for purpose.

Table 1: Summary of the existing consented operating range and proposed new operating range.

Operating Condition	Existing Consented Lake Levels	Proposed New Lake Levels	Increase in accessible MW from new consent
Normal Operating Range (minimum – maximum)	338masl – 346masl	336masl – 346masl	Increase of 70GWh / 23% increase (enough to power 10,000 homes for 1 year)
Contingent Storage Operating Range (minimum – maximum)	336masl – 338masl	333masl – 336masl at 4% ERC 330masl – 336masl at 8% ERC	333 – Provides ~100GWh of contingent storage (up from ~70GWh currently) at 4% ERC 330 – Provides an additional ~100GWh contingent storage at 8% ERC

2.2.2 Project Description

Contact is seeking to be referred under the FTAA to obtain new approvals for the Project, which will contribute to achieving New Zealand's decarbonisation goals and increasing the security of New Zealand's electricity supply. Collectively, the Project will enable Contact to have a larger ability to adjust its generation capacity to the most critical times and meet New Zealand's needs, using hydro generation to backfill the space left by the retirement of thermal generation, as well as the increase in intermittent (and less predictable) renewable electricity generation systems (e.g. wind and solar). The Project will also increase critical energy storage levels to manage dry year risks.

The proposed consents sought to achieve the Project's objectives are described, more specifically below:

> New consent to dam Lake Hāwea to enable the minimum normal operating level of the lake to be lowered to 336 masl.

This will provide Contact with an additional 2m of hydro storage that can be immediately accessed as needed to increase the potential of electricity that can be generated from

the CHS, and therefore, increase the flexibility of the operation of the CHS. This will also result in a 23% increase in the electricity storage from Lake Hāwea (from 300GWh to 370GWh), which is sufficient electricity to power 10,000 homes for one year (or an additional 40,000 households through a dry winter). This amount of electricity saves approximately 68,000tCO_2e compared to coal fired generation.

Access to an additional 2m will be utilised during winter and spring to provide supply for the CHS during dry years. It is therefore expected that the additional storage will not be accessed every year, it will only be needed in dry years. In such years, additional utilisation of water from Lake Hāwea during the winter months would be offset by lower releases later in the year (from September). Further, there will be fewer forced releases through the off-peak period in December and January, during high flow events, thus, reducing unnecessary spill, increasing the efficiency of the utilisation of this hydro resource.

> New consent to lower the allowable lake level during defined contingent storage events to permit lowering Lake Hāwea to:

  - 333 masl at 4% ERC (the Alert Level); and
  - 330 masl at 8% ERC.

  This will immediately enable Contact to increase power generation during electricity emergency events, and therefore, improve system security. The contingent storage will only be accessible, when these events are determined by Transpower, as the system operator. Contact cannot access the contingent storage at any other times. Contingent storage is referred to as the 'fuel of last resort', before a public campaign asks consumers to conserve power, and/or rolling outages cut supply to households and businesses. Therefore, it will only be accessed in these extreme circumstances. Since the granting of its existing CHS consents in 2007, Contact has not accessed the contingent storage in Lake Hāwea, in fact contingent storage at Lake Hāwea has not been accessed in more than 40 years.

  This will increase Lake Hāwea's available contingent electricity storage by up to 280% (from 70GWh to 200GWh). This is sufficient electricity to power 28,500 homes for one year, or approximately 100,000 homes through a dry winter, and will save approximately 196,000tCO_2e compared to coal fired generation.

  Contact is seeking this consent in light of New Zealand's evolving electricity system, as discussed below, and to ensure New Zealand is prepared and able to respond to electricity emergency events. This includes having the appropriate management measures in place to manage the potential effects associated with lowering the lake,

whilst ensuring New Zealand can keep the lights on. This will, therefore, immediately and significantly contribute to electricity security in New Zealand.

No physical work is required to implement the Project. Therefore, once consent is granted, the benefits of the Project can be realised immediately (although the contingency storage will only be used in very isolated and exceptional circumstances it provides significant additional resilience to the system).

Contact currently holds resource consents for damming Lake Hāwea, which allow for the operation of the CHS.[1] These consents specify the minimum allowable lake level and provide for a smaller amount of contingency storage. Consequently, changes to the conditions of the existing resource consents are needed to ensure they align with the new consents and do not conflict with them. These changes are essential for implementing and delivering the Project because they will allow the new consents to be exercised under the specified conditions while ensuring compliance with Contact's existing consents.[2] Therefore, these adjustments will be processed as variations simultaneously with the new operating and lake level limits consents that are being sought through the FTAA.

It is noted that whilst there are existing consents for the activities relating to this application, using the same natural resource, these are held by Contact, the authorised person for this Project, in accordance with section 30(1)(b) of the FTAA.[3]

Detail on the Project rationale, including changes to New Zealand's electricity system and the role of hydro generation is provided in the sections below.

2.2.3 Project Rationale

2.2.3.1 Electricity in New Zealand

Electricity is vital to the lives of all New Zealanders. Electricity in New Zealand is supplied by a range of generation types, with hydro generation being the largest contributor, providing 60.5% of New Zealand's electricity in 2023. The other significant generation types include geothermal, gas, wind and coal.

Supply and demand of electricity must be kept in a tight balance at all locations on the grid. If this is not achieved, it can lead to widespread blackouts. The varying power demand in New Zealand creates a need for flexible supply. Demand for electricity is not constant throughout the day or across seasons, peaking early in the mornings and in the evenings,

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1 Consent No. 2001.383.

2 Section 42(6); Section 13(4)(y)(ii) of the FTAA.

3 Clause 2(1)(b) of Schedule 5 of the FTAA.

particularly during winter. These changes in demand mean that the electricity system needs flexible supply sources that can be ramped up or down quickly to ensure that the grid remains balanced.

Some forms of electricity generation cannot be readily controlled, and therefore, are variable and uncertain, often referred to as 'intermittent generation'. Examples of these are wind and solar generation, whereby the power output from these sources will vary with the prevailing weather and solar conditions. Comparatively, hydro power stations with sizeable storage reservoirs provide a source of flexible supply. These sources of electricity provide much of the short-term flexibility needed to counteract hourly, daily and seasonal variations in demand and intermittent supply. This is illustrated in **Figure 1** below which shows the variation in hydro generation at a national level across a typical winter day in 2020. This shows hydro generation with storage provides flexibility to meet varying levels of demand. The primary storage lakes in New Zealand are Lakes Taupo, Tekapo, Pukaki, Hāwea, Te Anau and Manapouri. Thermal stations (running on diesel, gas and coal) also provide flexibility in New Zealand's electricity system, however as discussed below many of these stations are being retired or struggling to source adequate supplies of fuel.

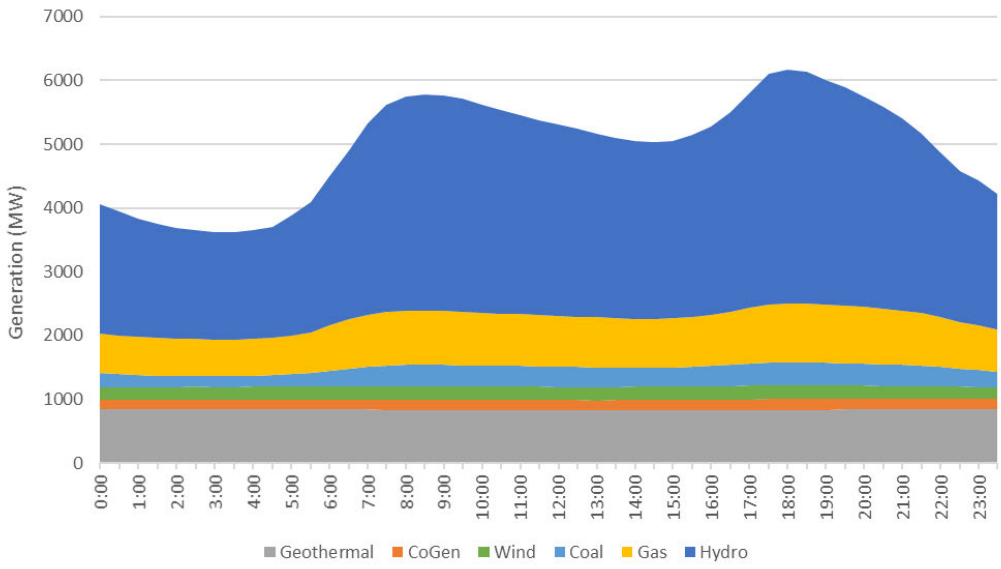

Figure 1: Average power generation by generation type in winter 2020 over a 24-hour period (source: Electricity Authority data).

2.2.3.2 Changes in the electricity market

The New Zealand Government has set out its climate change targets, including:

- The emissions reduction target established by the Climate Change Response Act 2002 of reducing New Zealand's greenhouse gas emissions (except biogenic methane) to net zero by 2050;
- The targets to double New Zealand's renewable generation capacity by 2050 as set out in the Electrify NZ policy; and
- The increased demand for renewable electricity generation as a result of decarbonising New Zealand's industries as set out in the Emissions Reduction Plan.

New Zealand's economy is undergoing rapid decarbonisation and electrification to assist with meeting these targets. Thermal plants are being retired throughout the country, for example the Otahuhu Power Station, Southdown Power Station and Te Rapa Power Station have been retired, and the Taranaki Combined Cycle is due to be retired soon. In addition, natural gas production and exploration is declining. Gas production has fallen from 250 petajoules in 2001, to 105 petajoules in 2024, and this decline is expected to continue in the future with production in 2025 currently tracking to be less than 100 petajoules.

New Zealand is fortunate to have a large supply of existing hydroelectricity and geothermal resources that currently contribute to approximately 80% of New Zealand's electricity supply. However, significant investment in renewable electricity generation infrastructure will be required to achieve the renewable electricity generation targets while growing, and decarbonising, our economy.

The Ministry of Business, Innovation and Employment prepared a set of Electricity Demand and Generation Scenarios in 2024 which predicted total electricity demand will grow between 35.3% and 82% by 2050.[4] The commercial and industrial sectors are the main drivers of this growth, in particular the electrification of transport that is anticipated to occur from the late 2030s due to an increased uptake of electric vehicles.

Along with steady electricity demand growth, the Climate Change Commission predicts renewable electricity generation will provide for approximately 96% of the electricity market by 2030. Most of the new generation is expected to come from intermittent resources, such as wind and solar. This transition is expected to change the New Zealand energy system from one that has primarily been 'energy constrained', to one that is primarily 'capacity constrained'. This means that there may be times where there is excess electricity generation, and other times where the electricity generation fleet is unable to meet peak demand, particularly if it coincides with periods of low wind and solar generation. It is

[4] Electricity Demand and Generation Scenarios: Results summary, July 2024, Ministry of Business, Innovation & Employment.

therefore imperative that hydroelectricity generation with storage is available to ensure that New Zealand's electricity generation system is fit for purpose to provide security of supply in the future.

2.2.3.3 Flexibility of hydroelectricity generation

Hydro generation with storage is a valuable form of firming that can help balance the electricity system in the long term. Storage enables hydro generation to be flexible, which allows it to respond quickly to changes in demand of other intermittent renewable generation such as wind and solar. This is illustrated in **Figure 2** below. Hydro generation with storage can not only respond to daily changes in demand, but also to immediate fluctuations in demand, and therefore, contributes to overall system security. This is enabled through access to water storage and its controlled release when required. Therefore, water storage is a critical component of flexible hydro-electricity schemes.

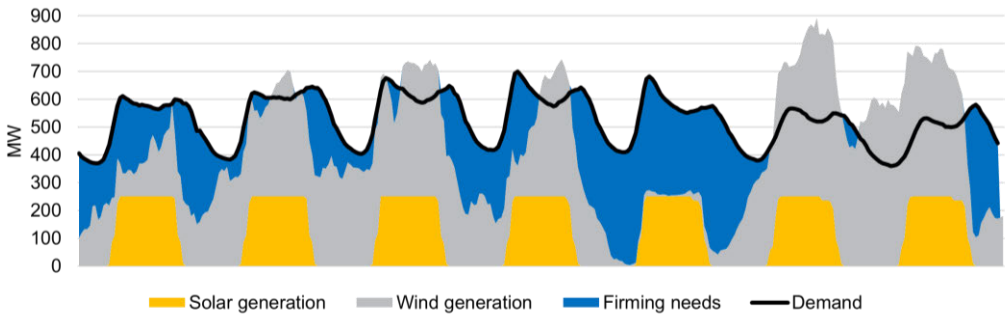

Figure 2: Illustrative week of future New Zealand electricity supply/demand balance.

Thermal generation also provides flexibility to electricity generation in New Zealand. However, as noted above, thermal generation will be phased down to meet New Zealand's decarbonisation goals (and gas supply). Therefore, there is an increasing need for flexibility from renewable electricity generation sources, which can only be provided from controlled storage hydro generation.

2.2.3.4 Role of the Clutha Hydro Scheme in New Zealand's electricity system

Contact owns and operates the CHS. The CHS is comprised of two power stations on the Clutha River / Mata-Au, one at Clyde and one at Roxburgh. Together, these two power stations have a generation capacity of 752 MW. The CHS generates approximately 12% of New Zealand's renewable electricity generation and about 10% of New Zealand's gross electricity demand. The CHS therefore contributes significantly to New Zealand's economic and social well-being.

The CHS is operated as one integrated / interdependent management unit from Clyde. The three primary structures associated with the CHS are the Hāwea Dam, the Clyde Dam and the Roxburgh Dam. These were all established prior to the enactment of the RMA. In 2001, Contact lodged resource consent applications to continue operating these three structures and the consents held by Contact from the Otago Regional Council permit the damming and discharge of water to operate the CHS. The consents were granted in 2007 for a 35-year term, expiring in 2042. The consents provide for the operation of the CHS within identified limits. This includes restrictions on the operating range of Lakes Hāwea, Dunstan and Roxburgh, as well as the minimum and maximum discharge from the associated dam structures.

The Hāwea Dam is designed to provide effective control of the level of Lake Hāwea over an operating range from 327.6 – 347.3 masl (currently authorised as 338m – 346 masl). The role of the dam is to control the level of Lake Hāwea, and therefore, provide storage for the Clyde and Roxburgh plants downstream. Lake Hāwea provides the only storage for the CHS. Water can be released for power generation, and other purposes such as to provide for recreational flows, irrigation or flood mitigation. There is no electricity generation plant at the Hāwea Dam, however, the present operating range of Lake Hāwea provides 300GWh of water storage.

Downstream of the Hāwea Dam is the Clyde Dam which provides control of the level of Lake Dunstan, which has an operating range of 1m (193.5 masl -194.5 masl). This effectively means the power station largely uses the “run of the river”, however, this flow is able to be supplemented using storage at Lake Hāwea. The Roxburgh Dam, downstream from the Clyde Dam, controls the level of Lake Roxburgh which has an operating range of 2.45m (130.15 masl – 132.6 masl). Again, while this provides some short-term storage it essentially operates as run-of-the river.

The CHS is an existing nationally and regionally significant physical resource and must be operated as an integrated part of New Zealand’s total electricity generation. The level of generation from the CHS can be controlled (i.e. raised or lowered within consented limits), primarily through the storage capacity of Lake Hāwea, to reflect the needs of the electricity system. Therefore, the CHS has flexibility which allows it to respond to intraday and seasonal changes in electricity demand.

2.2.3.5 Future operation of the Clutha Hydro Scheme

The CHS is expected to become an even more important contributor to the security of New Zealand’s electricity supply as the proportion of electricity generated by intermittent supply (wind and solar) increases. The existing consent conditions for the CHS were granted in an electricity market that has since changed significantly. The conditions were developed for an

electricity market where firming was met by thermal plants (i.e. gas and coal). Therefore, there was less need for hydro assets to be flexible within the broader system. However, since issuing the CHS consents in 2007, New Zealand has decommissioned over 1000 MW of carbon emitting thermal baseload generation capacity and constructed over 1000 MW of renewable, but intermittent, generation capacity. As noted above, this change in the electricity market presents new challenges to the security of electricity supply in New Zealand. This challenge has been well signalled in both 2023 and 2024 by Transpower in their role as the system operator.

For the remaining term of the CHS consents (2042), even greater changes and challenges will occur in New Zealand's electricity system, and a significant operating response will be required from New Zealand's existing renewable forms of electricity generation, but in particular, its existing controlled storage hydro generation.

The CHS is an existing electricity generation facility that has fundamentally modified the natural character of the catchment and the development around it. These impacts are irreversible and extend well beyond the dam structures and their respective storage lakes. Therefore, every opportunity to improve the operational efficiency and flexibility of the CHS needs to be considered to meet the electricity needs of New Zealand.

With more flexible storage approaches, Contact's existing hydro portfolio within the catchment could provide a significantly greater contribution towards firming the electricity system, increasing security of supply and aiding New Zealand to achieve decarbonisation. The objective of this Project is to deliver greater operation and management flexibility of the water storage in Lake Hāwea to respond to, and enable, greater decarbonisation of the electricity system and to increase New Zealand's security of electricity supply. To not do so will hinder both New Zealand's climate change goals and the security of its electricity system.

2.2.3.6 Lake Hāwea Operating Range

As noted above, the consented operating range of Lake Hāwea is the primary storage for the CHS (with very limited storage provided in each hydro lake). Currently, the 8m operating range of Lake Hāwea provides 300GWh of storage.

Prior to the commissioning of the Hāwea Dam in 1958, Lake Hāwea had an uncontrollable operating range, with a mean level of 327.7 masl and annual fluctuations were approximately 2m. The control structure was constructed to control the level of the lake within an operating range of 327.6 – 347.3 masl (19.4m). Between 1958 and 1980, the lake operated with a maximum level of 346.75 masl and an uncontrolled minimum level of 327.7 masl (an operating range of 19.05m). This resulted in an increase in the fluctuation of the

level of Lake Hāwea, with extremely low levels occurring in 1965 (330m), 1976 (327m) and 1977 (330m) (refer to **Figure 3** below). The time taken for the lake to refill after being drawn down depends on the level to which the lake is dropped, and to a lesser degree, the volume of inflow. Therefore, a consequence of the extremely low levels in the lake in 1976 and 1977 was that the maxima during the intervening year was only 336m, and the lake spent a prolonged period at low levels. In 1978 the lake was operated without a draw down in order to let it refill. This therefore had consequences for the generation of electricity from the CHS.

In September 1980, the National Water and Soil Conservation Authority ("**NWASCA**") fixed the permitted minimum and maximum levels of Lake Hāwea at 336m and 346 masl, respectively, subject to conditions with operation down to 330m in exceptional circumstances. Subsequently, there has been a reduction in the fluctuations of the lake level, with the lowest levels of the lake typically occurring during winter and early spring.

Contact operates the CHS using a relatively conservative approach. This means that Contact very rarely draws the lake down to the lowest minimum allowable level (currently 338m) or fills the lake to the highest operating level (currently 346m), as shown on **Figure 3** below. This is because drawing the lake down to the minimum operating level restricts Contact's ability to generate any more electricity from the CHS, as it is unable to draw the lake down any further and must wait for the lake levels to rise again. Contact is also obligated to ensure minimum flows from Lake Hāwea are always maintained, and as such, the Lake cannot be drawn down to its minimum level without the risk of breaching the minimum flow requirements of Contact's consent conditions. And on the other hand, filling the lake to the highest-level leads to erosion issues that can occur at high lake levels under certain wind conditions.

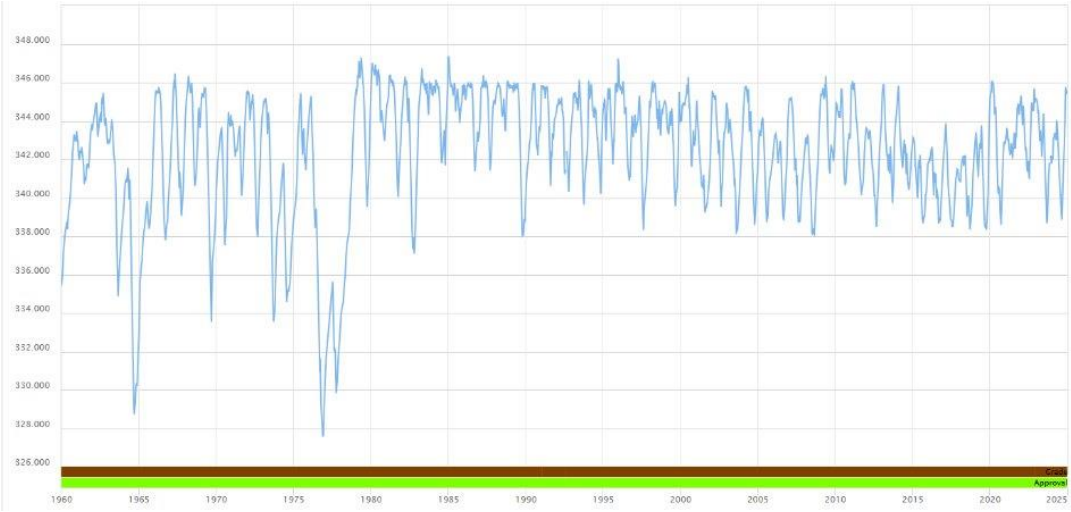

Figure 3: Level of Lake Hāwea since 1960 (masl).

In addition to the normal operating range, Contact's existing consent provides for the ability to access contingent storage from Lake Hāwea during defined electricity emergency events and draw the lake down to 336 masl. Currently, this is available when the ERC ("**Electricity Risk Curve**") reaches 4% chance of the system having insufficient electricity, meaning there is 4% chance New Zealand will run out of electricity. This is the Alert Level on the ERC. The ERC is calculated by the system operator, being Transpower. Therefore, Contact is not able to access this contingent storage on its own accord. Contingent storage is 'the fuel of last resort', used after all other fuels and voluntary demand reduction measures have been exhausted, to keep the lights on. Contact has not accessed the contingent storage since its consents were granted in 2007 (in fact contingent storage at Lake Hāwea has not been accessed in more than 40 years).

2.2.4 Project Site Description

2.2.4.1 Clutha River / Mata-Au

The Clutha River / Mata-Au is fed by Lake Wānaka and Lake Hāwea, located in the Queenstown Lakes District in the Otago Region. Lake Wānaka is principally fed from the Matukituki and Makarora Rivers and has one outlet into the Clutha River / Mata-Au.

Lake Hāwea is a dammed waterbody, with lake levels managed within a normal operating range of 8m. The catchment of Lake Hāwea includes the Young Range, the Huxley Range and Mount Burke. The Hāwea Dam is located at the outlet of Lake Hāwea and flows into the Hāwea River. The Hāwea River joins the Clutha River / Mata-Au at Albert Town in Wānaka. From there it runs to a point just north of Lake Dunstan, where it is joined by the Lindis River, and subsequently flows into Lake Dunstan / Te Wairere.

Lake Dunstan / Te Wairere is a man-made lake that formed on the Clutha River / Mata-Au following the construction of the Clyde Dam, located approximately 1.5km upstream from Clyde. The Kawarau River, flows from Lake Whakatipu into Lake Dunstan, merging at Cromwell. Lake Dunstan passes through the Cromwell Gorge between Cromwell and the Clyde Dam.

Below the Clyde Dam, the Clutha River / Mata-Au flows into Lake Roxburgh where it is joined by the Manuherikia River at Alexander. Lake Roxburgh is another man-made lake that formed following the construction of the Roxburgh Dam. The Roxburgh Dam is located approximately 9km north of the town of Roxburgh.

Below the Roxburgh Dam, the riverbed flattens out and flows through Roxburgh, Beaumont, Tuapeka Mouth and Clydevale, before it reaches Balclutha, where it splits into the Koau and

Mata-Au branches of the Clutha River / Mata-Au and subsequently flows into the Pacific Ocean.

The Clutha River / Mata-Au catchment is the largest in New Zealand, with an area of 20,582km^2. The catchment experiences significant variation in climatic conditions, particularly seasonally. This effects the flow of water into the Clutha River / Mata-Au.

2.2.4.2 Overview of the Clutha Hydro Scheme

The CHS is located along the Clutha River / Mata-Au in the Otago Region and consists of the following three dams:

- Hāwea Dam, the most upstream dam, which dams the outlet of Lake Hāwea (the main storage for the CHS);
- Clyde Dam, which dams the Clutha River / Mata-Au at Clyde forming Lake Dunstan / Te Wairere; and
- Roxburgh Dam, which dams the Clutha River / Mata- Au just upstream of Roxburgh township, forming Lake Roxburgh.

Contact operates the three dams interdependently. There are power stations located at the Clyde and Roxburgh dams. An overview of the CHS is illustrated in **Figure 4** below.

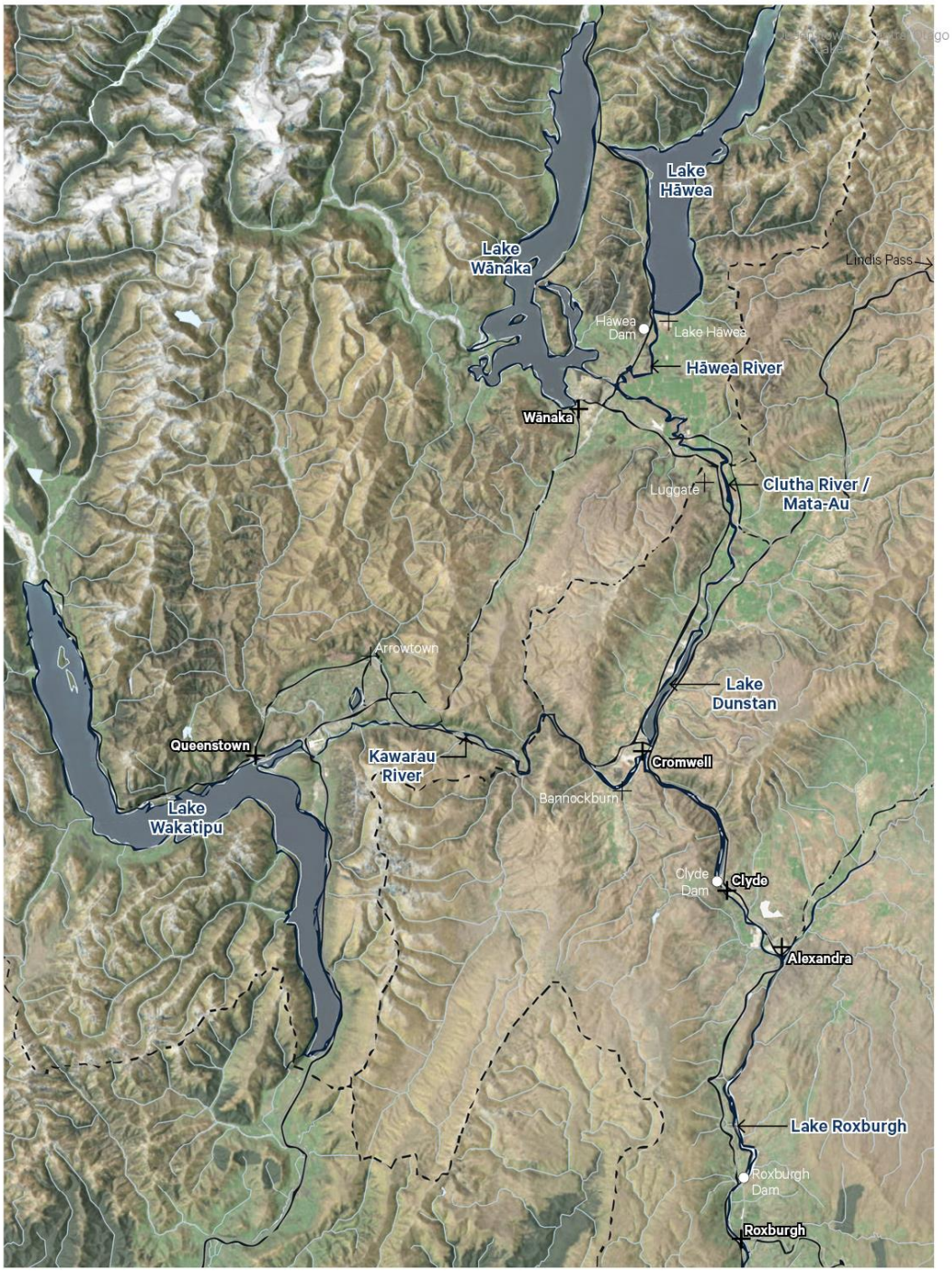

Figure 4: Clutha River / Mata-Au Hydro Scheme Overview.

2.2.4.3 Lake Hāwea

Lake Hāwea is a large (143.6km^2), deep (maximum depth 384m) glacial lake. The main section of Lake Hāwea runs approximately north-south and is on average 5km wide and 20km long. The Hunter Valley Arm extends a further 25km to the north-east, to meet the broad, braided riverbed of the Hunter River. Another smaller arm extends east-west

approximately halfway up the lake, close to a feature commonly known as the "Neck", which is a relatively narrow area of land separating Lake Hāwea from Lake Wānaka.

The surface of Lake Hāwea lies at an altitude of approximately 346 masl and is bounded on three sides by steep mountains. Approximately 50 streams discharge into Lake Hāwea, over half of which are tributaries of the Hunter River. The most notable water courses flowing into the lake are the Hunter River, Dingle Burn and Timaru River.

To the south of the lake is a terminal moraine formation which created the original lake. The town of Lake Hāwea is situated here. The Lake Hāwea Control Structure, which includes the Hāwea Dam, is situated at the south-western corner of the lake. The Hāwea Dam is 30m high, earth-filled and includes a concrete control structure with four radial gates to control the outflow.

The Hāwea River to the south discharges from the lake into an 18m deep, incised channel. It continues south for 12km before it reaches the Clutha River / Mata-Au below Albert Town.

2.2.4.4 Land Holdings

The land holdings for the bed of Lake Hāwea are as follows (the Record of Titles are attached as **Attachment 2**):

- Lot 2 Deposited Plan 25173, owned by Contact Energy; and
- Section 1 SO 24526, owned by Her Majesty the Queen through the Commissioner of Crown Lands and over which Contact Energy has an operating easement in its favour.

2.3 INELIGIBLE ACTIVITIES

In accordance with section 5 of the Fast-track Approvals Act 2024 ("**FTAA**"), the Project does not meet the definition of an ineligible activity as the Project:

- Will not occur on identified Māori land;
- Will not occur in a customary marine title area;
- Will not occur in a protected customary rights area;
- Will not occur on Māori customary land;
- Will not occur on land set apart as a Māori reservation as defined in section 4 of Te Ture Whenua Māori Act 1993;
- Is not an aquaculture activity;
- Does not require an access arrangement under the Crown Minerals Act 1991;

- Is not an activity that would be prevented under section 165J, 165M, 165Q, 165ZC or 165ZDB of the Resource Management Act 1991;
- Will not occur on land that is listed in Schedule 4 of the FTAA;
- Will not occur on a national reserve held under the Reserves Act 1977;
- Will not occur on a reserve held under the Reserves Act that is managed by someone other than the Department of Conservation or a local authority;
- Is not a prohibited activity under the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 or regulations made under that Act;
- Is not an activity that is described in section 15B of the RMA or an activity that is prohibited by section 15C of the RMA;
- Is not a decommissioning-related activity; and
- Is not an activity undertaken for the purposes of an offshore renewable energy project.

Therefore, the Project is eligible to use the FTAA consenting process.

2.4 EXEMPTIONS FROM REQUIREMENTS TO PROVIDE AGREEMENT

2.4.1 Mining Activities

The Project is not for an activity that is prospecting, exploration, mining or mining operations of Crown-owned minerals undertaken below the surface of any land or area.

2.4.2 Land Exchange

The Project is not located on land proposed to be the subject of a land exchange.

2.5 MINISTERIAL APPROVAL

The Project is not an activity that is seeking a ministerial determination under section 23 or 24 of the FTAA.

2.6 APPROPRIATENESS OF THE FAST-TRACK APPROVALS PROCESS

2.6.1 Purpose of the FTAA

The Project is an infrastructure project that will have significant regional and national benefits. As noted previously, given New Zealand's evolving electricity system and decarbonisation goals, as well as a drive to grow our economy, increasing the security of electricity supply from renewable sources is a matter of national importance. The Project will provide an immediate significant contribution to increasing the security of the electricity

supply in New Zealand, through increasing access to an existing hydro storage, being renewable electricity that is available on demand, and as such, it is able to fill the gaps when solar and wind generation are low (provide firming to intermittent renewables). In addition, the Project will immediately enable access to a greater amount of hydro storage during emergency electricity events, to ensure New Zealand is adequately equipped to "keep the lights on".

In addition, the Project will immediately contribute to:

> Increasing power generation during dry periods;

> Reducing dry period volatility;

> Reducing unnecessary spill of water; and

> Increasing renewable electricity generation from existing assets.

Lowering the allowable operating level of Lake Hāwea to 336 masl will increase energy storage from 300GWh to 370 GWh (23% increase). This increase is enough to power 10,000 homes for one year. It will also save 69,000tCO_2e compared to coal fired generation.

The reduction of the minimal allowable lake level when contingent storage is required from 336 masl to 333 masl or 330 masl (subject to specified triggers) will increase the power generation periods and system security during defined low storage contingency events defined by the system operator (Transpower). This reduction in lake level to 330 masl will increase the contingent storage from 70GWh to 200 GWh (280% increase), which is enough to power 28,500 homes for one year, or approximately 100,000 homes through a dry winter, and saves 196,000tCO_2e compared to coal fired generation.

The Ministry of Business, Innovation and Employment ("**MBIE**") has recently released a report on electricity demand and generation scenarios. Latest Government projections are that total electricity demand will grow by between 35.3 and 82 percent by 2050, driven by industry switching from fossil fuel use to electricity (such as for space and process heating) in the short-term, and the electrification of the transport fleet through increased uptake of electric vehicles, particularly from the late 2030s.

If contingency measures, such as that provided by this Project, are unable to be brought online in a timely way, large power outages (brown and black outs) and rapidly increasing costs to industry (including major exporters) and consumers are unlikely to be tolerable; rather, New Zealand would likely increase its reliance on imported coal and may move towards importing gas to provide the required electricity supply, which would have obvious consequences in terms of carbon emissions and cost.

The Project will therefore facilitate the immediate flexible generation of a nationally significant source of electricity, crucial for the operation of New Zealand. The Project is clearly an infrastructure project with significant and immediate national and regional benefits and is therefore strongly aligned with the purpose of the FTAA (being to facilitate the delivery of such projects).

2.6.2 Criteria for Assessing Referral Application

Referring the Project to the fast-track approvals process will meet the criteria outlined in section 22, as outlined in the following sub-sections.

2.6.2.1 Would facilitate the project, including by enabling it to be processed in a more timely and cost-effective way than under normal processes

In Contact's experience, the consenting of projects related to waterways and water storage triggers wide public interest (from around New Zealand and beyond) which can often be a lengthy and challenging process. A project such as this, would likely trigger public notification, attracting submissions from a range of parties, and it is highly likely that the Project would involve a hearing process and likely appeal to the Environment Court (and potential further appeals) which would add additional time and cost to the consenting process.

The FTAA process will therefore significantly reduce the consenting timeframe for the Project (by an estimated two years) and the cost of consenting under the RMA process by:

- Having more efficient timeframes – this is considered critical if the Project is to support "turbo charging" the development of renewable generation in New Zealand and providing security to our electricity system (which New Zealand urgently needs);
- No limited or full notification of the application; and
- No appeals to the Envrionment Court, with appeals under the FTAA being available to the High Court on points of law only and only one further right of appeal with leave.

Based on this, the Project will benefit (and so will New Zealand) considerably through the use of the FTAA, including reducing both the time and cost associated with processing.

2.6.2.2 Is unlikely to materially affect the efficient operation of the fast-track approvals process

As this Project seeks to provide greater operational and management flexibility of the water storage in Lake Hāwea to respond to, and enable, greater decarbonisation of the electricity system and to increase New Zealand's security of electricity supply; it is nationally

significant. The Project meets the eligibility criteria and will significantly benefit from the cost and process efficiencies of the FTAA process.

Contact has commissioned the technical assessments required to support the application under the Act. The effects of the Project are largely known. The initial technical work that has been completed to date (and attached to this application) indicate that the effects of the Project can be appropriately managed.

In addition to this, the application from Contact to through the FTAA process will be of a high standard and presented with professionalism and a high-level of experience. Further, there remains plenty of scope for the use of the FTAA process with only a limited number of projects presently in the system (referral or substantive).

As such, the Project will not negatively affect the efficient operation of the FTAA process.

2.6.2.3 Has the Project been identified as a priority project in a central government, local government, or sector plan or strategy (for example, in a general policy statement or spatial strategy), or a central government infrastructure priority list

The New Zealand government has set clear emissions reduction targets to contribute to the international effort to combat the effects of climate change. The Project will increase the electricity supply from renewable sources and aid New Zealand to achieve decarbonisation. The Project therefore will contribute to New Zealand achieving its climate change targets that are set out in central government policies and plans, including assisting the New Zealand Government to meet:

- The emissions reduction target established by the Climate Change Response Act 2002 of reducing New Zealand's greenhouse gas emissions (except biogenic methane) to net zero by 2050; and
- The Government has set out clear actions to address New Zealand's infrastructure deficit and energy shortage through a series of changes to national direction under the RMA. This was signalled in the press release by Chris Bishop, the Minister for Infrastructure, which noted that '*the energy system is facing complex challenges right not. The security and reliability of our electricity supply depends on bringing new generation online …*' The changes signalled include amendments to the National Policy Statement for Renewable Electricity to strengthen the policy guidance that renewable energy is vital to New Zealand's prosperity. These changes will contribute towards achieving the target of doubling New Zealand's renewable generation capacity as set out in the Electrify NZ policy.

2.6.2.4 Will the Project deliver new regionally or nationally significant infrastructure or enable the continued functioning of existing regionally or nationally significant infrastructure

The CHS is recognised as existing nationally significant infrastructure in the Otago Regional Policy Statement. The Project is critical to the future efficient and flexible operation of the CHS and in maximising the contribution the CHS provides to New Zealand's electricity, noting that it currently generates approximately 10% of New Zealand's electricity. With the added security to the network provided by this Project, Contact will be able to deliver additional electricity during dry periods putting downward pressure on wholesale electricity prices when they are often the highest, and increasing firming for intermittent renewable energy projects.

Additionally, the Project utilises existing infrastructure, and therefore, its significant national and regional benefits can be delivered with immediate effect once consent is granted.

2.6.2.5 Will the Project increase the supply of housing, address housing needs, or contribute to a well-functioning urban environment (within the meaning of Policy 1 of the National Policy Statement on Urban Development 2020)

The Project does not directly contribute to the supply of housing, and is not located within an urban environment. However, the Project provides significant security to the electricity network which is critical to meeting the housing needs and to achieving a well-functioning of urban environment.

2.6.2.6 Will the Project deliver significant economic benefits

The Project will generate significant economic benefits including:

- A positive impact on wholesale electricity prices - in recent years, wholesale electricity prices have risen sharply, and the future market predicts they will get higher. This is largely due to a significant increase in the cost of fossil fuels. This Project, and its ability to immediately delivery its benefits, will mean that less coal and gas is burnt and will also contribute to bringing down wholesale electricity prices, particularly when they are highest in dry winter periods.
- Given the CHS is existing, no construction is required for the Project, however, this will provide increased cost savings to the end consumer faster as the Project can be realised immediately following the granting of the consent, compared to the costs and time associated with the development of new renewable electricity generation infrastructure.
- The increased electricity generation capacity that will result from the Project will lead to enhanced environmental outcomes through reducing the reliance on non-renewable

electricity sources, and as such, will contribute to mitigating the effects of climate change which will have longer-term economic benefits through avoiding the associated environmental damage that is caused by climate change.

- The Project will increase winter peaking capacity (and therefore system security), offsetting the need for thermal generation in New Zealand. Cumulatively, the changes will allow Contact to have a larger ability to adjust its generation capacity to the most critical times for New Zealand's needs, helping to use hydro generation to backfill the space left by the retirement of thermal generation, which will in turn generate benefits to the economy.
- The Project will increase the availability of flexible renewable electricity generation, and therefore, enable the development of more intermittent (and less predictable) renewable generation systems such as solar and wind. The Project will support "turbo charging" the development of renewable generation in New Zealand. New Zealand homes and businesses expect consistent electricity supply, so intermittent generation must be complemented with flexible generation to fill in the gaps when it is not windy or sunny. As noted in Transpower's Winter 2024 outlook paper "more flexible supply and demand-side resources are needed in the market to meet the energy and capacity challenge for a reliable and efficient electricity system that supports increased electrification and decarbonisation of the economy". This is also addressed in the 2025 Transpower SOSFIP Review Issues Paper which notes that controlled hydro storage levels have fallen rapidly in 2025 to date due to record low inflows, very low wind generation and limited thermal response.

2.6.2.7 Will the Project support primary industries, including aquaculture

The commercial viability of New Zealand's primary industries is underpinned by having an affordable, reliable and efficient supply of electricity. The ability of the Project to have a positive impact on wholesale electricity prices, support growth in generation and to provide security to the network supports our primary industries. Primary industries are also decarbonising with many key factories and facilities now using electricity or their generation requirements.

2.6.2.8 Will the Project support development of natural resources, including minerals and petroleum

The CHS utilises a natural resource (water) to generate electricity. The Project will enable the use of this natural resource in a more efficient and reliable way to meet the electricity needs of New Zealanders. As with the primary sector the extractive sector relies on

electricity for its processing and day to day operations. Without affordable, reliable and efficient supply of electricity the potential of the resources sector will not be unlocked.

2.6.2.9 Will the Project support climate change mitigation, including the reduction or removal of greenhouse gas emissions

The Project will significantly support climate change mitigation and the reduction of greenhouse gas emissions. The Project will result in an increase in the potential electricity generation capacity of the CHS, thus increasing the supply of renewable electricity to the National Grid. The Project will also contribute to increasing electricity security in New Zealand and result in a more efficient use of the existing hydro scheme which will lead to a reduction in the reliance on thermal electricity sources.

Lowering the normal operating level of Lake Hāwea to 336 masl will result in a 23% increase in the electricity storage form Lake Hāwea (from 300GWh to 370GWh), which is sufficient electricity to power 10,000 homes for one year. This amount of electricity saves approximately 68,000tCO_2e compared to coal fired generation.

In addition, the lowering of the contingent storage levels to 330 masl will increase Lake Hāwea's contingent electricity storage by up to 280% (from 70GWh to 200GWh). This is sufficient electricity to power 28,500 homes for one year (or ~100,000 homes through a dry winter) and will save approximately 196,000tCO_2e compared to coal fired generation.

As noted above, given the CHS is existing infrastructure, the Project's benefits can be realised immediately, thus, reducing reliance on non-renewable electricity generation sources faster than would otherwise occur from the development of new renewable electricity generation activities.

2.6.2.10 Will the Project support climate change adaptation, reduce risks arising from natural hazards, or support recovery from events caused by natural hazards

The Project will contribute to strengthening New Zealand's resilience as it will contribute to increasing the supply of electricity to the region and the National Grid, increasing the resilience of the electricity network. This will be critical in the recovery from events caused by natural hazards. By enabling a larger operating range in Lake Hāwea, the Project will also improve the ability of the lake to manage flooding risks caused by high inflows.

2.6.2.11 Will the Project address significant environmental issues

Climate change is a significant environmental issue. The Project will contribute to reducing New Zealand's reliance on non-renewable electricity generation sources, and thus, contribute to reducing greenhouse gas emissions in New Zealand and assist in New Zealand's climate change mitigation.

2.6.2.12 Is the Project consistent with local or regional planning documents, including spatial strategies

The Project seeks resource consents pursuant to the Otago Regional Council planning instruments. The Otago Regional Policy Statements (operative and proposed) and the Regional Plan: Water for Otago ("**Regional Water Plan**") all recognise the value and importance of renewable electricity generation at a local, regional and national level. A brief assessment of the Project against the relevant planning documents is provided below.

Operative Otago Regional Policy Statement 2019 (Operative RPS)

Of most relevance to the Project, the Operative RPS recognises that renewable electricity generation activities that supply electricity to the National Grid are nationally and regionally significant infrastructure.[5] This therefore includes the CHS. The relevant policy direction seeks to provide for renewable electricity generation activities, including promoting the efficient use of existing structures or facilities.[6] This policy direction supports the Project which seek to enhance the efficiency of the existing CHS to provide for New Zealand's electricity needs. Further, the Project will assist in reducing the effects of climate change through assisting with New Zealand's decarbonisation, contributing to a more reliable and secure electricity system.[7]

The CHS is existing, and thus, the existing environment is highly modified as a result. The Operative RPS seeks to maintain or enhance aquatic ecosystem health and indigenous biodiversity, and as far as practicable, the amenity and landscape values of rivers and lakes.[8] The technical assessments that are being prepared for the Project will ensure these effects are appropriately addressed and the potential effects and mitigation measures are briefly discussed in the technical reports attached to this application.

The management of effects of the Project will be directed by the outcomes sought in the Operative RPS. This includes avoiding, remedying or mitigating adverse effects of the Project, and where residual adverse effects remain, Contact will offset and compensate for these effects. The Operative RPS provides for offsetting and compensation for indigenous biological diversity when residual adverse effects cannot be avoided, remedied or mitigated, to achieve a no net loss, and preferably, a net gain in indigenous biological diversity.[9]

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5 Policy 4.3.2, Otago Regional Policy Statement 2019.

6 Policy 4.4.1, Otago Regional Policy Statement 2019.

7 Policy 4.2.2, Otago Regional Policy Statement 2019.

8 Policy 3.1.1; Policy 3.1.9, Otago Regional Policy Statement 2019.

9 Policy 5.4.6; Policy 5.4.6A, Otago Regional Policy Statement 2019.

In addition, the Operative RPS seeks to ensure Kāi Tahu values, interests and customary resources are recognised and provided for. Contact recognises the relationship Kāi Tahu have with the Clutha River / Mata-Au as well as Lakes Hāwea, Dunstan and Roxburgh. Contact will continue to engage with Kāi Tahu on the Project to ensure effects of the Project on cultural values are appropriately addressed and provided for.

Proposed Otago Regional Policy Statement 2021 (Proposed RPS)

The Proposed Otago Regional Policy Statement 2021 provides explicit policy direction that supports the implementation of the CHS and promotes the advancement of renewable electricity generation within the Otago Region. Furthermore, LF-VM-O2 articulates the vision for the Clutha Mata-au Freshwater Management Unit, which encompasses the CHS, and directs that:

> *'the national significance of the ongoing operation, maintenance and upgrading of the Clutha hydro-electricity generation scheme, including its generation capacity, storage and operational flexibility and its contribution to climate change mitigation, is recognised and protected, and potential further development is provided for within this modified catchment.'*

The Project is consistent with the policy direction of the Proposed RPS as it will:

- Provide effective, efficient, safe and resilient nationally significant infrastructure;[10]
- Ensure the health and wellbeing of Otago's communities and economy is supported by renewable energy generation within the region that is safe, secure and resilient;[11]
- Maintain and improve the security and installed capacity of renewable electricity supply in Otago;[12]
- Support the overall reduction in New Zealand's greenhouse gas emissions and achieving the national target for emissions reduction;[13]
- Result in an increase in the generation capacity of renewable electricity generation activities in Otago, and contribute to meeting New Zealand's national target for renewable electricity generation;[14] and

[10] EIT-INF-O4, Proposed Otago Regional Policy Statement 2021.
[11] EIT-EN-O1, Proposed Otago Regional Policy Statement 2021.
[12] EIT-EN-P3, Proposed Otago Regional Policy Statement 2021.
[13] EIT-EN-O2A, Proposed Otago Regional Policy Statement 2021.
[14] EIT-EN-O2, Proposed Otago Regional Policy Statement 2021.

> Provide for the operation, maintenance and upgrade of the existing CHS, including the maintenance of generation output and protection of operational capacity.[15]

In terms of the management of effects, policy EIT-EN-P6 directs that the management of adverse effects associated with electricity generation activities shall have regard to the extent and magnitude of adverse effects on the environment and the degree to which unavoidable adverse effects can be remedied or mitigated, or significant residual adverse effects are offset or compensated for. Contact will apply this approach to the management of effects associated with this Project and this will be informed by the technical assessments that are being undertaken.

Further, as noted above, Contact recognise the relationship Kāi Tahu has with the water bodies that form part of the CHS and is committed to ensuring the effects of the Project on these values are appropriately addressed.[16] Contact will continue to consult with Kāi Tahu Papatipu Rūnaka on the Project and is committed to achieving a collaborative approach with Kāi Tahu Papatipu Rūnaka to address the effects of the Project on cultural values.

The above policy direction provides specific provision for the ongoing operation and upgrading of the CHS, including its resilience and the security of its generation capacity. The Project is therefore consistent with the Proposed RPS.

Regional Plan: Water for Otago - Updated 2022

The Regional Water Plan seeks to maintain and enhance natural and human use values of lakes and rivers, enhance spiritual and cultural beliefs, protect the natural character and maintain amenity values. The Plan also seeks to limit operating levels of any controlled lake, where appropriate, to avoid or mitigate adverse effects on natural and human values, the natural character of the lake, amenity values, lake margin stability and the needs of the community. In doing this however, there is a requirement to provide for sustainable use and development of Otago's waterbodies. It is considered the Project is a sustainable use of Lake Hāwea as the CHS is existing and the Project will ensure it is being used in the most efficient way which will benefit New Zealand by providing resilience to the electricity network. Contact is undertaking engagement with relevant parties, including the Hāwea community, and commissioning technical assessments to support the assessment of effects to ensure the effects associated with the Project are appropriately addressed. As such, it is considered the Project is consistent with the Regional Water Plan.

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[15] EIT-EN-P1, Proposed Otago Regional Policy Statement 2021.

[16] MW-P3; HCV-WT-O1, Proposed Otago Regional Policy Statement 2021.

Queenstown Lakes District Plan (Operative 2008)

The CHS is provided for by the Operative Queenstown Lakes District Plan 2008 ("**the District Plan**") as being within the "Hydro Generation Zone." The Plan seeks to provide for the efficient operation, maintenance, refurbishment and enhancement of established hydro generation facilities where environmental effects can be mitigated and where mitigation cannot be provided financial contributions are required. Contact is commissioning technical assessments to determine the level of effect the Project will have and is committed to working to manage or mitigate these effects. Whilst no consents for the Project are required under the District Plan, the Project is consistent with the District Plan.

Other Queenstown Lakes District Council Strategies and Plans

The Queenstown Lakes District Council ("**QLDC**") has a number of strategic planning documents that outline the vision for the district. This includes the Strategic Action Plan, one goal of which is that the energy system in the District is resilient, renewable and responsive. In addition, the QLDC has prepared a draft Climate and Biodiversity Plan for 2025-2028, that is currently being consulted on with the community, and QLDC noted during consultation that this is relevant to this Project. In particular, the draft Plan notes a focus on strengthening preparedness and response to environmental risks, and progressing toward zero carbon communities, as well as the importance of enhancing energy security, ensuring equitable access to affordable, sustainable energy for generations to come.

The Project is consistent with the direction provided in these strategic planning documents, noting that it will contribute to increasing the security of electricity supply in the District, as well as the decarbonation goals. The increase in access to the water stored in Lake Hāwea will enable Contact to increase its renewable electricity generation capacity from this hydro resource, and this will subsequently benefit the electricity system, including wholesale electricity prices, making electricity more affordable for the end consumer.

3. PROJECT DETAILS

3.1 TIMING OF CONSTRUCTION

No construction works are required to facilitate the Project, the CHS is existing nationally significant infrastructure. The flows will be controlled by the existing infrastructure.

3.2 APPROVALS REQUIRED

Due to the existing consents held by Contact to operate the CHS, the Project will involve seeking approvals for both new resource consents to provide for the proposed activities, as well as changes (variations) to the conditions of the existing resource consent held by Contact to dam Lake Hāwea. These changes are material to the implementation and delivery of the Project as they will ensure the new consents can be exercised under the specified conditions, whilst ensuring compliance with Contact's existing consents.[17] The changes made to these conditions will solely be to ensure the existing consents provide for the activities associated with the new consents when they apply. It is proposed that the new consents authorised as part of this Project are exercised in conjunction with the existing consents held by Contact to operate the CHS. This means that during the circumstances that apply to the new consents sought, the new consents will apply to the operation of the CHS, and in all other circumstances, the existing consents will apply.

Contact is therefore seeking the following approvals for the Project under section 42 of the FTAA:

> Resource consents that would otherwise be applied for under the RMA (section 42(4)(a) of the Act); and

> Change or cancellation of resource consent conditions that would otherwise be applied for under the RMA (section 42(4)(b) of the Act).

The proposed activities are described in more detail below.

3.2.1 Resource Management Act 1991

Otago Regional Council

Approval is required for a new resource consent under the Regional Water Plan for the damming of water within Lake Hāwea to permit lowering the minimum operating level of Lake Hāwea to 336 masl and to permit lowering the minimum level of Lake Hāwea when contingent storage is required to 333 masl (at 4% ERC) and to 330 masl (at 8% ERC).

[17] Section 13(4)(y)(ii), Fast-track Approvals Act.

Consent for these activities is required under Rule 12.3.4.1 of the Regional Water Plan for the damming of water as a discretionary activity.

In addition, approval is also required to change the consent conditions of the existing consent held by Contact to dam Lake Hāwea (Condition 9 of consent 2001.383) to provide for the exercise of the new consents for the Project.

It is noted that Contact holds existing resource consents for the discharge of water from Lake Hāwea and the take of water associated with the operation of the CHS. These activities are not relevant to this application and the Project.

Queenstown Lakes District Council

No approvals are required from Queenstown Lakes District Council.

National Environmental Standards for Freshwater 2020

No approvals are required under the National Environmental Standards for Freshwater 2020.

3.2.2 Conservation Act 1987

No approvals are required under the Conservation Act 1987.

3.2.3 Wildlife Act 1953

No approvals are required under the Wildlife Act 1953.

3.2.4 Heritage New Zealand Pouhere Taonga Act 2014

No approvals are required under the Heritage New Zealand Pouhere Taonga Act 2014.

3.2.5 Freshwater Fisheries Regulations 1983

No approvals are required under the Freshwater Fisheries Regulations 1983.

3.2.6 Other Approvals

No other approvals, including consents, certificates, designations, concessions or other legal authorisations are required to authorise this Project.

3.3 STAGING OF THE PROJECT

The CHS is existing nationally significant infrastructure. The Project, once approved, can immediately deliver its benefits. The Project requires operational and management changes only, no new infrastructure is required. For management purposes, staging of use of the added flexibility may occur to ensure its efficient and effective implementation. The critical

matter though is that the Project will enable Contact to manage the hydro resource in a responsive manner from day one. This means that its nationally significant benefits are immediately available, including to support the growth of solar and wind generation and enable economic growth for New Zealand.

In regard to the contingency storage, the new lake levels unlocked by the Project will only occur if, and when, Transpower notify Contact that the ERC has reached 4% or 8% indicating that the electricity system is under stress and the risk of an energy shortage is material. As such no staging will be required.

3.4 ALTERNATIVE PROJECT

The Project is not proposed as an alternative project.

3.5 ADVERSE EFFECTS

Contact has commissioned a number of technical assessments to inform the Assessment of Environmental Effects for the substantive application. The effects that are being assessed relate to the following areas:

- Ecology;
- Landscape and visual amenity;
- Hydrology;
- Dust;
- Recreation; and
- Geotechnical.

These assessments are currently being prepared, and the following represents a summary of what is known with respect to the potential adverse effects being key to this proposal. In addition, Contact is engaging with Kāi Tahu Papatipu Rūnaka in relation to cultural effects associated with the Project.

3.5.1 Summary of Adverse Effects

3.5.1.1 Cultural Effects

The Project is located within the tribal rohe of Kāi Tahu and the Clutha River/Mata-au, Lake Hāwea, Lake Dunstan and Lake Roxburgh are statutory acknowledgement areas. Contact acknowledges the relationship between Kāi Tahu Papatipu Rūnaka and these waterbodies and is committed to continuing to engage with Aukaha and Te Ao Marama Inc. (on behalf of Kāi Tahu Papatipu Rūnaka) in regard to the Project to ensure effects of the Project on

cultural values are appropriately addressed. Contact has commenced engagement with Kāi Tahu Papatipu Rūnaka in relation to this Project (as discussed further below) and Contact will continue to engage with Kāi Tahu Papatipu Rūnaka throughout the preparation of the substantive application.

3.5.1.2 Landscape and Natural Character

Contact has engaged Isthmus to identify the effects the Project may have on landscape and visual amenity values. This assessment was desktop based, and Isthmus will undertake a complete assessment to be submitted with the substantive application. This is included as **Attachment 3** to this application.

Isthmus identified lowering the normal operating range of Lake Hāwea will have the following landscape and natural character effects:

- Increased width and depth of gravel beaches around the edge of Lake Hāwea;
- Wider beach and further distance to the water for beach users;
- Shallower beaches and potential boat access issues at the Neck and Kidds Bush Reserve Camping area;
- Less horizontal land would be exposed;
- Increase in dust generation during windy conditions; and
- Longer periods of lake refilling.

In addition, in a broad sense, Isthmus considers the natural character of the Lake will largely be maintained with the reduced operating level, noting that the wider beaches and increase in lake margins are natural elements in the wider context of the Lake and surrounding mountains. Although these may be changes to the appearance of particular areas, they do not significantly alter the natural character of the Lake in the wider context.

For the change in contingent storage levels, the effects identified above would also be applicable, however, the width of exposed gravel beach would be broader, and therefore, the associated effects would also increase. The maximum alert reduction of 6m (at 8% ERC) is expected to have considerable amenity and visual effects, particularly on the Hāwea community, from the potential increase in dust generation (during windy conditions) and prolonged reduction in lake level. However, this needs to be considered in light of the frequency of such events, noting that the 4% ERC (let alone the 8% ERC) has not been triggered since the existing consents have been in place (2007). Therefore, the occurrence of such effects is anticipated to be very infrequent and will only occur when the potential

adverse effects of loss of electricity on social, cultural, economic and environmental well-being are at the highest.

The existing conditions of the consents held by Contact to operate the CHS require Contact to prepare and implement a Foreshore Landscape Management Plan for the Hāwea foreshore. This manages the effects of the CHS (including the fluctuations of water levels) on the landscape values of the foreshore area in front of the Lake Hāwea township. It is expected that the Foreshore Landscape Management Plan will continue to be used, and updated as required, to monitor and manage the effects of the new consents sought in this application.

Potential mitigation options will be investigated further as part of the substantive application. As the primary effect of the Project will be on visual amenity and boat ramp access, conversations will be undertaken with the community to inform the proposed mitigation measures. This may include improving access to the Lake, enhancing public amenities in the area, and if required, specific mitigation to properties within the Lake Hāwea township.

3.5.1.3 Ecology Effects

Contact has engaged Greg Ryder Consulting ("**Ryder**") to undertake an ecological assessment of Lake Hāwea and determine the potential effects the reduction in lake level will have on ecology. This is included as **Attachment 4** to this application.

Baseline assessment was undertaken that determined, although it is subjected to large and frequent (annual) fluctuations in its lake level), Lake Hāwea is considered to be in good to excellent ecological health and a standout relative to most other lakes in New Zealand. Water quality is very good and the well-recognised salmonid fisheries are in good condition and valued by the angling fraternity. Native fisheries of the Lake are not diverse, but there is no indication that they are declining, and it is likely the tuna fishery will gradually increase as a result of efforts by Contact to restock the Lake to address the adverse effects of the downstream hydro dams on upstream recruitment.

Ryder has considered the following potential effects of the Project on ecology:

- Avifauna – Birds are highly mobile fauna and any potential effects will be temporary. The existing bird community has adapted to the lake environment and lake level fluctuations over time;
- Shoreline vegetation – The lake margin is a highly modified environment and there is unlikely to be ecological change to the existing environment;

- Water quality – Ryder considers there is no reason to suggest that water quality of the lake will materially alter as a result of the Project;
- The benthic environment – The length of time for which the littoral zone is exposed will have an influence on the degree of impact on the littoral habitat. Recovery of the macrophyte community due to low lake levels could take anywhere between several months to 1-2 years, depending on refilling of the Lake and wave action. The reported depth range of the bryophyte community in Lake Hāwea (326 -311 masl) is below the bottom range of the emergency contingency storage proposed (330 masl), and therefore, is unlikely to be affected by the proposed changes. Further, there is no reason to suggest that the proposed activities will increase the presence of invasive aquatic plants. The current operating regime has been highly effective in excluding *Lagarosiphon* from becoming established in the Lake, as has occurred in Lake Wānaka. In addition, in regard to the recovery of benthic invertebrate communities following the lowering of the lake level, Ryder considers some taxa will recover on a time scale of weeks, while others may take months to reach previous abundance and composition; and
- Native fish and salmonids – Fish are mobile and able to move as water levels reduce and are therefore unlikely to get stranded. Ryder considers the native fish and salmonid populations are adaptable and any effects will be temporary. Fish will be able to recover from any potential effects associated with the lowering of the lake level. It is noted that the current lake level regime has maintained a healthy and abundant sport fishery, and Ryder considers the proposed changes are unlikely to substantially change this situation.

The extent and scale of the severity of the effects of the proposed activities on ecology are being further investigated and this will inform the mitigation measures that Contact will develop to appropriately manage the ecological effects of the Project.

3.5.1.4 Hydrology Effects

Further assessment of the potential hydrology effects will be undertaken as part of a substantive application. Groundwater supplies water for domestic/drinking water consumption and agriculture activities in the Hāwea basin. The Otago Regional Council provided Contact with a report on groundwater in the Hāwea basin, which found a connection between lake and groundwater levels, with the lake being identified as a main source of recharge to the aquifer. The model suggests that lowering the level of the lake may have effects on groundwater availability in the area. Contact notes the uncertainty around the modelling identified in the report provided and intends to engage an independent expert to complete further modelling on the interaction between lake levels and groundwater in the

Hāwea basin to increase understanding on this potential effect. The findings of this work, and any proposed management measures, will be addressed in the substantive application.

3.5.1.5 Recreational Effects

There are a number of recreational users of the waterbodies that form part of the CHS. This includes the lakes, which are used for swimming, boating and fishing activities, particularly in the summer. Contact acknowledges the recreational value of Lake Hāwea and is committed to ensuring any effects of the Project on recreational values are appropriately addressed. This will include engaging with the community and recreational users of the CHS to ensure that any concerns raised are carefully considered and addressed. Contact will ensure that access to the lake is maintained at all times. This may involve constructing a temporary access to the lake when contingent storage is required.

3.5.1.6 Dust Effects

It is anticipated the Project may result in an increase in the generation of dust. Decreasing the normal minimum operating level of Lake Hāwea by 2m and the contingency level by up to 6m will increase the area of the lakebed that is exposed when the lake is lowered. This will potentially increase the dust that becomes airborne from wind erosion (depending on wind conditions). For the substantive application Contact will engage a specialist to complete a dust effects assessment to recommend management measures to minimise the potential effects of the proposed changes on dust. It is anticipated that there will be sufficient mitigations to manage dust effects to an appropriate level through the preparation and implementation of a Dust Management Plan.

3.5.1.7 Geotechnical Effects

Lowering of the lake levels has the potential to result in geotechnical effects. Consultation with the QLDC identified the potential for slumping/subsidence near State Highway 6 (western side of the lake) when the lake levels are dropped to very low levels. It was noted that this occurred during the very low lake levels experienced in the 1970s. Whilst the proposed activities do not involve lowering the levels of the lake to the levels that occurred in the 1970s, Contact intends to commission a geotechnical assessment to identify any potential effects associated with the lowering of the lake. Details of the findings of this assessment, and any recommended management measures, will be outlined in the substantive application.

3.5.1.8 Conclusion

Contact has commissioned a number of detailed technical assessments to address the above effects which are currently being undertaken and will further inform the substantive

application. These will also outline the appropriate management measures to avoid, remedy and mitigate, and where required, offset and compensate for, any potential adverse effects associated with the Project.

3.5.2 Prohibited Activities

No activities involved in the Project are prohibited activities under the RMA.

3.6 PERSONS AFFECTED

3.6.1 Persons, groups and/or entities who are considered likely to be affected by the Project

Contact considers the following persons, groups and entities are likely to be affected by the Project:

- Otago Regional Council;
- Queenstown Lakes District Council; and
- Te Rūnanga o Ngāi Tahu, including Aukaha and Te Ao Marama Inc (who acts on behalf of Kāi Tahu Papatipu Rūnaka on resource management and environmental matters).

3.6.2 Consultation undertaken with the above persons and/or groups and how this has informed the Project

Contact is committed to engaging meaningfully with the above parties in relation to the Project. As a result of the feedback received to date, Contact has increased the scope of technical investigations to be undertaken as a part of the substantive application for this Project, including more detailed hydrology investigations (especially with respect to the correlation between lake levels and groundwater levels), the potential for geotechnical issues along the western side of the Lake, and to undertake visualisations of culturally important sites that will be identified by Te Rūnanga o Ngāi Tahu.

Contact has undertaken consultation in accordance with section 11 of the FTAA and is committed to continuing to engage with these parties throughout the FTAA consenting process and build on the existing relationships Contact has established with these parties. The below outlines this 'mandatory' FTAA consultation and how this has informed the Project.

Te Rūnanga o Ngāi Tahu (as the relevant iwi authorities and Treaty settlement entity)

Contact is currently consulting with Te Rūnanga o Ngāi Tahu on the Project and have an agreement to continue consulting throughout the application process. A Project

introduction was presented to Te Rūnanga o Ngāi Tahu on April 17, with a follow up more detailed presentation and question and answer session on April 22. Feedback has included a request for visualisation of selected sights at different lake levels and a peer review process for technical reports developed as a part of the substantive application. Contact provided Te Rūnanga o Ngāi Tahu with a copy of the draft referral application and ecology report. Te Rūnanga o Ngāi Tahu has subsequently provided Contact with a letter outlining the consultation that has been undertaken and the intention for further ongoing consultation to occur in relation to the substantive application (**Attachment 5**).

Otago Regional Council (as a relevant local authority for the Otago Region)

A pre-application meeting was held with the Otago Regional Council ("**ORC**") on May 12, 2025, where the Project was described including potential effects. ORC was furnished with a copy of the presentation and a copy of the commissioner's decision of the current CHS consents, as well as information regarding contingent storage and electricity risk curves. ORC provided a response to the meeting with contributions from 18 staff members which highlighted likely effects to be investigated including hydrology. Contact subsequently provided ORC with a draft of the referral application and ecology report for further comment. ORC provided further comments to Contact, which included comments from the Science, Resource Consents, Strategy and Compliance Teams. Contact appreciates the comments received and these have helped identify the technical assessments that Contact will commission for the substantive application to ensure the potential effects that have been identified are fully addressed, as well as the relevant regional policy direction.

Queenstown Lakes District Council (as a relevant local authority for the Queenstown Lakes District)

Contact has consulted with the Queenstown Lakes District Council ("**QLDC**"), outlining the Project and its intention to submit a referral application to seek eligibility under the FTAA. A pre-application meeting was held with the QLDC on June 4, 2025, where the Project was described including potential effects. QLDC highlighted the potential for geotechnical issues at very low lake levels based on issues experienced in 1976 and 1977 when the lake level was dropped to 327masl (well below what is proposed by the Project). In addition, QLDC noted the consistency of the Project with its strategic planning documents (the Climate and Biodiversity Plan (2025-2028) in particular), and these have been addressed in this application. Contact subsequently provided QLDC with a draft of the referral application and ecology report for further comment. QLDC have provided Contact with further information on the capacity of the Scott's Beach borefield to address in the substantive application, as well as identifying potential effects associated with the boat ramp, jetty and

swimming platform at Lake Hāwea. Contact intends on having contingency plans in place to ensure access to these structures is maintained

Ministry for the Environment (as the administering authority for the RMA)

Contact has consulted with the Ministry for the Environment, outlining the Project and its intention to submit a referral application to seek eligibility under the FTAA. Contact received a letter from the Ministry for the Environment which helpfully confirmed the relevant national policy statements and national environmental standards that Contact will carefully revisit and consider in its substantive application.

3.6.3 Treaty settlements that apply to the project area and a summary of the relevant principles and provisions in those settlements

There is one relevant treaty settlement that applies to the geographical location of the Project, being the Ngāi Tahu Claims Settlement Act 1998. This Act reflects the deed of settlement in which the Crown acknowledged that Ngāi Tahu suffered grave injustices which significantly impaired Ngāi Tahu's economic, social and cultural development and which recorded the matters required to give effect to a settlement of all of Ngāi Tahu's historical claims.

The Ngāi Tahu settlement includes:

- An apology from the Crown;
- Redress in respect of Aoraki/Mount Cook;
- Cultural redress;
- Commercial/economic redress; and
- Non-tribal redress.

The Crown apology recognised Ngāi Tahu as "the tāngata whenua of, and as holding rangatiratanga within, the Takiwā of Ngāi Tahu Whānui."

Taonga Species

In the Treaty settlement the Crown acknowledges the cultural, spiritual, historic and/or traditional association of Ngāi Tahu with each of the taonga species, and taonga fish species. Some of the species identified within Lake Hāwea are taonga fish species under the settlement. Contact will work closely with Te Rūnanga o Ngāi Tahu to ensure any effects on taonga fish species are appropriately addressed.

Recognition of Mana

Ngāi Tahu's mana is recognised in the Treaty settlement through statutory acknowledgements, deeds of recognition, Tōpuni and place names.

A statutory acknowledgement is an acknowledgement by the Crown of Te Rūnanga o Ngāi Tahu's particular cultural, spiritual, historical, and traditional association with a site or area. Statutory acknowledgements recognise the mana of Ngāi Tahu over a range of sites and areas in the takiwā and have implications for processes under the RMA and the Heritage New Zealand Pouhere Taonga Act.

Of relevance to the Project, the Clutha River / Mata-Au, of which the CHS is located on, is a statutory acknowledgment area (Schedule 40). In addition, Lake Hāwea (Schedule 30), Te Wairere / Lake Dunstan (Schedule 61) and Kā Moana Haehae / Lake Roxburgh (Schedule 22) are statutory acknowledgement areas.

3.6.4 Any principles or provisions in the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019 that would be invoked by the project

Not relevant to the Project.

3.6.5 Treaty Settlement Land

The Project will not be located on land returned under a Treaty settlement.

3.6.6 Public Works Act 1981

No processes have been undertaken under the Public Works Act 1981 in relation to the Project.

3.6.7 Māori Land, Marae, or Identified Wāhi Tapu within the Project Area

Contact acknowledge Kā Papatipu Rūnaka relationship with the landscape and the enshrined concept of kaitiakitaka. With this, Kā Papatipu Rūnaka's connection to landscape is not bound only to discrete 'Wāhi Tapu', but to the landscape in its entirety as 'Wahi Tupuna'. This is articulated in Chapter 39 of the Queenstown Lakes District Plan.

There are no parcels of Māori land, marae or other identified wāhi tapu within the Project Site.

3.7 LEGAL INTERESTS

Contact has all the legal interests (either freehold land it owns or in the form of easements over land subject to its operations) required to undertake the activities for the Project

immediately. Therefore, there are no land and/or legal interests that would impede its ability to implement the Project immediately.

3.8 OTHER MATTERS

3.8.1 Details of the application

No application has been made under a specified act for this Project.

3.8.2 Outcome of the decision and the reasons for it

N/A

3.8.3 Climate Change and Natural Hazards

The Project will significantly support climate change mitigation and the reduction of greenhouse gas emissions. The Project will support the delivery of other renewable electricity projects. The Project will also result in an increase in the potential electricity generation capacity of the CHS, thus, increasing the supply of renewable electricity to the National Grid. This will result in a more efficient use of the existing hydro scheme and will lead to a reduction in the reliance on thermal electricity sources. Given the CHS is existing infrastructure, the Project can be realised immediately, thus, reducing reliance on non-renewable electricity generation sources faster than would otherwise occur from the development of new renewable electricity generation activities. This is consistent with the national policy direction and the Electrify NZ policy.

3.8.4 Approvals under the Resource Management Act 1991

The Project is seeking consent for activities that would otherwise be applied for under the RMA. An assessment against any relevant national policy statement and national environmental standard is provided in the sections below.

3.8.4.1 National Policy Statement for Renewable Electricity Generation ("NPS-REG")

The sole objective of the NPS-REG is:

> *'To recognise the national significance of renewable electricity generation by providing for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities, such that the proportion of New Zealand's electricity generation from renewable energy sources increases to a level that meets or exceeds the New Zealand Government's national target for renewable electricity generation.'*

In accordance with the above objective, Policy A of the NPS-REG seeks to ensure that decision-makers recognise and provide for the national significance of renewable electricity

generation activities, including by maintaining or increasing electricity generation capacity and the security of electricity supply at local, regional and national levels. Further, Policy C1 of the NPS-REG addresses the reality that renewable resources must be utilised where they are found. The policy recognises the inevitable 'environmental trade-offs' that must be incurred when achieving the national renewable electricity targets.

The Project is supported by the policy direction of the NPS-REG given it will result in an increase in the security of electricity supply in New Zealand. New Zealand's electricity system is evolving with the increase in intermittent renewable electricity generation (i.e. wind and solar) and the retirement of thermal generation, in order to meet New Zealand's decarbonisation goals. As such, the role of hydroelectricity generation in the electricity market is becoming increasingly important, in that New Zealand's hydro assets can operate flexibly to play the role of balancing supply and demand in real time, which intermittent sources cannot do. The CHS is existing nationally significant infrastructure and provides 10% of New Zealand's electricity. The Project will increase the security of electricity supply by enabling Contact to access additional water storage during times when electricity needs to be generated to meet the needs of New Zealanders and keep the lights on.

No construction is required for the Project, and therefore, the Project's benefits can be realised immediately following the granting of this consent.

The Project is consistent with, and supported by, the NPS-REG.

3.8.4.2 National Policy Statement for Freshwater Management ("NPS FW")

The NPS-FM sets out the objectives and policies that direct local authorities to manage water in an integrated and sustainable way, while providing for economic growth within set water quantity and quality limits.

Central to the NPS-FM is the concept of Te Mana o te Wai, which is defined as:

> '*a concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community*.'

The objective of the NPS-FM is:

> '*...to ensure that natural and physical resources are managed in a way that prioritises:*
>
> *a) first, the health and well-being of water bodies and freshwater ecosystems*
>
> *b) second, the health needs of people (such as drinking water)*

c) *third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.'*

In addition, the following policies are relevant to the Project:

> ***Policy 1**: Freshwater is managed in a way that gives effects to Te Mana o te Wai.*
>
> ***Policy 2**: Tangata whenua are actively involved in freshwater management (including decision-making processes), and Māori freshwater values are identified and provided for.*
>
> ***Policy 3**: Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.*
>
> ***Policy 4**: Freshwater is managed as part of New Zealand's integrated response to climate change.*
>
> ***Policy 5**: Freshwater is managed (including through a National Objectives Framework) to ensure that the health and well-being of degraded water bodies and freshwater ecosystems is improved, and the health and well-being of all other water bodies and freshwater ecosystems is maintained and (if communities choose) improved.*
>
> ***Policy 7**: The loss of river extent and values is avoided to the extent practicable.*
>
> ***Policy 8**: The significant values of outstanding water bodies are protected.*
>
> ***Policy 9**: The habitats of indigenous freshwater species are protected.*
>
> ***Policy 10**: The habitat of trout and salmon is protected, insofar as this is consistent with Policy 9.*
>
> ***Policy 11**: Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided.*
>
> ***Policy 15**: Communities are enabled to provide for their social, economic, and cultural wellbeing in a way that is consistent with this National Policy Statement.*

In considering the Project against the above provisions, the following is noted:

- The Project will ensure appropriate controls are in place to maintain the health and welling of the waterbodies;
- Electricity is a fundamental requirement for modern homes and communities and Contact, as an entity that generates electricity for distribution through a network, is defined as a 'lifeline utility' under Part B of Schedule 1 of the Civil Defence Emergency Management Act 2002, and as such, the Project will contribute to the health needs of people;

- The Project is seeking to increase the security of electricity supply to provide for the electricity needs of New Zealand. This will enable people and communities to provide for their social, economic and cultural wellbeing, now and in the future;
- Contact has engaged with mana whenua in relation to the Project and understands that maintaining the quality of freshwater bodies and habitats is important to preserving the cultural values associated with these environments. Contact will continue engagement with mana whenua throughout the Fast-track process to ensure cultural values are addressed in an appropriate and meaningful way;
- Contact will apply the effects management hierarchy to the management of effects associated with the Project on the values of the affected waterbodies. Where adverse effects cannot be practicably avoided, Contact will ensure these effects are minimised, remedied and/or appropriately offset and compensated to the extent that is practicable and in accordance with the advice from technical experts. That approach is available and consistent with the NPS-FM as the CHS is 'specified infrastructure' for the purposes of clause 3.21 and 3.24 of the NPS-FM;
- Contact has engaged a number of technical experts to undertake effects assessments for the Project, including on freshwater ecology, landscape and amenity values and hydrology, and this will inform the effects management measures that Contact will implement to address and actual and potential environmental effects that arise from the proposed condition changes; and
- The CHS is already in existence, and the natural characteristics of the catchment area have undergone significant modification. Consequently, it is appropriate to enhance its operational efficiency in consideration of this existing altered condition, particularly when evaluated against alternative greenfield dam or storage options.

In addition, of relevance to the Project is clause 3.31 of the NPS-FM (Large hydro-electric generation schemes) which specifically recognises the 'Big 5' hydro schemes in New Zealand and includes the CHS. Clause 3.31(2) states that when implementing any part of the NPS-FM as it applies to a Freshwater Management Unit ("**FMU**") or part of a FMU affected by a Scheme, a regional council must have regard to the Scheme's national importance in respect of greenhouse gas emission targets, maintaining security of electricity supply and generation capacity, storage, and operational flexibility. The site is located in the Clutha Mata-au FMU, as identified in the Proposed RPS, and as discussed further below, the Project is consistent with and supported by the policy direction in the Proposed RPS, which provides for and recognises the national significance of the ongoing operation, maintenance and upgrading of the CHS, including that its generation capacity, storage and operational

flexibility and its contribution to climate change mitigation, is recognised and protected, and potential further development is provided for within this modified catchment.

For the reasons detailed above, the Project is consistent with the NPS-FM.

3.8.4.3 National Policy Statement for Indigenous Biodiversity ("NPS-IB")

The proposed changes to the contingency and emergency levels of Lake Hāwea will facilitate the security and efficiency of a renewable electricity generation asset and activity, as such the NPS-IB does not apply to any parts of this activity, and the proposal does not need to be assessed against the provisions of the NPS-IB.

3.8.4.4 National Policy Statement for Highly Productive Land ("NPS-HPL")

The land subject to the Project is not Highly Productive Land as such the National Policy Statement for Highly Productive Land is not applicable.

3.8.4.5 National Environmental Standards for Freshwater ("NES-FW")

The NES-FW regulates activities that pose risks to the health of freshwater and freshwater ecosystems. There are no relevant rules within the NES-FW applicable to the proposal.

3.8.4.6 National Environmental Standards for Electricity Transmission Activities ("NES-ETA")

The Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009 only apply to existing high voltage electricity transmission lines. Therefore, these standards do not apply to the proposed activity.

3.8.4.7 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health ("NES-CS")

The NES-CS outlines the standards relating to the disturbance of soil at sites that are potentially contaminated as such do not apply to the proposal.

3.8.4.8 National Environmental Standards for Air Quality ("NES-AQ")

The NES-AQ came into effect on 1 June 2011 and contains standards which set a guaranteed minimum level of health protection for people living in New Zealand, particularly in relation to discharges within urban airsheds. No resource consent for the Project is required under these Regulations, however, Contact will ensure that the management of dust associated with the proposal is appropriately managed.

3.8.5 Approvals relating to complex Freshwater Fisheries activities

3.8.5.1 Whether an in-stream structure is proposed (including formal notification of any dam or diversion structure), and a description of the extent to which this may impede fish passage

The proposal will utilise existing infrastructure which is approved under existing consents. As such, no approvals are being sought in relation to freshwater fisheries.